

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claim 2 and AMEND claims 1, 3, 4, 7, 10, 11, 12, 14, 17, and 18 in accordance with the following:

1. (CURRENTLY AMENDED) An apparatus where an operating system read out from a selected device of a multiplexed plurality of devices is started up for starting up the system, comprising:

a storing unit which stores environment data ~~for setting a boot from said plurality of devices,~~ said environment data includes first variable data including device setting data designating a boot candidate for said plurality of devices, second variable data including index data designating a boot device based on said device setting data, and third variable data in which a binary value indicating whether said multiplexing is valid or not is set;

a boot control unit which decides on a boot device based on the setting of said first variable data, said second variable data and said third variable data included in said environment data and starting up said operating system stored in said boot device; and

a control unit which controls multiplexing of said plurality of devices,
said control unit changing the setting of variable data included in said environment data and controlling switching to another device when an abnormality is detected in said boot device.

2. (CANCELLED)

3. (CURRENTLY AMENDED) An apparatus as set forth in claim 2~~1~~, wherein said boot control unit clears said index data to an initial value at the time of powering up the system and selects said device initially set in said device setting data for a boot.

4. (CURRENTLY AMENDED) An apparatus as set forth in claim 21, wherein said boot control unit selects a boot device designated by said index data when "valid" is set in said third variable data and selects the device initially set in said device setting data for a boot when "not" is set.

5. (ORIGINAL) An apparatus as set forth in claim 4, wherein said boot control means updates an index in said index data when "valid" is set in said third variable data.

6. (ORIGINAL) An apparatus as set forth in claim 5, wherein said boot control unit selects a boot device set in said environment data and reads in and starts up said operating system stored in said boot device.

7. (CURRENTLY AMENDED) An apparatus as set forth in claim 21, wherein said control unit refers to the setting in said first variable data and confirms that said boot device of a slave system has been used for startup when "valid" is set in said third variable data and said index data is not an initial value.

8. (ORIGINAL) An apparatus as set forth in claim 7, wherein said control unit issues a warning message showing that an abnormality has occurred in said device of a master system when recognizing that said boot device of said slave system has been used for startup.

9. (ORIGINAL) An apparatus as set forth in claim 7, wherein said control unit clears said second variable data to said initial value when there is said third variable data and said second variable data is not "0".

10. (CURRENTLY AMENDED) An apparatus as set forth in claim 21, wherein said control unit sets "no" in said third variable data when the third variable data is present in said storing unit and said plurality of devices are not set for redundant operation.

11. (CURRENTLY AMENDED) An apparatus as set forth in claim 21, wherein said control unit cuts off a boot device when detecting an abnormality in said boot device without regard as to if there is said third variable data in said storing unit and rewrites setting data of the devices serving as said boot candidates of said first variable data.

12. (CURRENTLY AMENDED) An apparatus as set forth in claim 21, wherein said storing unit is a nonvolatile memory and wherein said boot control unit and said control means rewrite the settings in said second variable data and said third variable data stored in the storing unit.

13. (ORIGINAL) An apparatus as set forth in claim 1, wherein said boot control unit executes booting by boot firmware stored in said storing unit.

14. (CURRENTLY AMENDED) An apparatus as set forth in claim 1, wherein said control unit ~~reads in system software stored in said boot devices for~~ executes controlling multiplexing of said plurality of devices based on system software read out from said boot device and stored in said storing unit, said system software checks multiplexing of the plurality of devices in the system, and processes switching said boot device to another device when an abnormality has occurred in said boot device.

15. (ORIGINAL) An apparatus as set forth in claim 3, wherein said boot control unit selects a boot device set in said environment data and reads in and starts up said operating system stored in said boot device.

16. (ORIGINAL) An apparatus as set forth in claim 4, wherein said boot control unit selects a boot device set in said environment data and reads in and starts up said operating system stored in said boot device.

17. (CURRENTLY AMENDED) A method for starting up data processing system in which an operating system read out from a selected device of a multiplexed plurality of devices is started up for starting up the system, comprising ~~the steps of:~~

storing environment data ~~for setting a boot from said plurality of devices;~~ said environment data includes first variable data including device setting data designating a boot candidate for said plurality of devices, second variable data including index data designating a boot device based on said device setting data, and third variable data in which a binary value indicating whether said multiplexing is valid or not is set;

deciding on a boot device based on the setting of said environment data and executing a boot control which starts up said operating system stored in said boot device;

controlling multiplexing of said plurality of devices; and
changing the setting of variable data included in said environment data and switching to another device when an abnormality is detected in said boot device.

18. (CURRENTLY AMENDED) A recording medium storing a program which starts up an operating system read out from a selected device of a multiplexed plurality of devices and starts up a data processing system, the program comprising ~~the steps of~~:

storing environment data ~~for setting a boot from said plurality of devices~~, said environment data includes first variable data including device setting data designating a boot candidate for said plurality of devices, second variable data including index data designating a boot device based on said device setting data, and third variable data in which a binary value indicating whether said multiplexing is valid or not is set;

deciding on a boot device based on the setting of said environment data and executing a boot control which starts up said operating system stored in said boot device;

controlling multiplexing of said plurality of devices; and

changing the setting of variable data included in said environment data and switching to another device when an abnormality is detected in said boot device.